

In The Claims:

Please Amend the Claims as Follows:

1. (Currently Amended) A cooling system for an imaging system comprising:

a mounting plate comprising a first side and an opposing second side, said mounting plate further defining at least one opening;

at least one heat conductor extending through said at least one opening and through at least a portion of a dielectric fluid reservoir defined adjacent said second side of said mounting plate and enclosing an X-Ray source, said at least one heat conductor absorbing heat from said dielectric fluid while not permitting said dielectric fluid to flow therein;

a thermally conductive sleeve coupled to said at least one heat conductor, said thermally conductive sleeve at least partially surrounding said X-Ray source, wherein said thermally conductive sleeve further defines at least one groove, wherein said at least one heat conductor is coupled to said thermally conductive sleeve at a surface of said groove ; and

a heat sink coupled to said first side of said mounting plate, said heat sink receiving at least a portion of said at least one heat conductor.

2. (Original) The system of claim 1, wherein said at least one heat conductor comprises a polygonal, semi-circular, or irregular cross-section.

3. (Original) The system of claim 1 further comprising a second heat conductor spaced apart from said first heat conductor and extending through a second opening defined in said mounting plate.

4. (Original) The system of claim 1 further comprising a plurality of spaced apart openings in said mounting plate arranged in an arc.

5. (Currently Amended) The system of claim 4, further comprising a plurality of heat [[pipes]] conductors extending through said plurality of spaced apart openings.

6. (Original) The system of claim 1, wherein said heat sink comprises at least one of

a plurality of thermally conductive fins coupled to said first side of said mounting plate and arranged parallel thereto, said plurality of thermally conductive fins receiving at least a portion of said at least one heat conductor,

a plurality of thermally conductive blocks coupled to said first side of said mounting plate, or

a solid thermally conductive block coupled to said first side of said mounting plate.

7. (Cancelled)

8. (Cancelled)

9. (Currently Amended) The system of claim [[8]] 1 further comprising an X-Ray shield enclosing said thermally conductive sleeve and arranged trans-axially thereto.

10. (Original) The system of claim 9, wherein said X-Ray shield comprises a first end and a second end, said first end defining at least one opening receiving said at least one heat conductor, said first end spaced a distance from said second side of said mounting plate, said first end coupled to said thermally conductive sleeve such that said thermally conductive sleeve extends a portion of a distance between said first end and said second end, said second end defining an opening for X-Rays from said X-Ray source to exit.

11. (Original) The system of claim 10, wherein said first end further comprises at least one projection extending along a portion of a length of said heat conductor such that said projection limits incident X-Rays from exiting said X-Ray shield.

12. (Original) The system of claim 9, wherein said thermally conductive sleeve comprises at least one of a general arc-shape, a general polygonal-shape, or an irregular shape.

13. (Currently Amended) The system of claim [[1]] 9 further comprising a second X-Ray shield coupled to said heat sink.

14. (Original) The system of claim 1, wherein said dielectric fluid comprises at least one of petroleum or silicone.

15. (Original) A cooling system for an Imaging system including an X-Ray source contacting dielectric oil comprising:

a mounting plate comprising a first side and an opposing second side, wherein only said second side contacts the dielectric oil, said mounting plate further defining a plurality of openings spaced apart from each other;

a plurality of heat pipes extending through said plurality of openings, whereby said plurality of heat pipes contact the dielectric oil;

a plurality of thermally conductive fins coupled to said first side of said mounting plate, said plurality of thermally conductive fins receiving at least a portion of each of said plurality of heat pipes; and

an X-Ray shield within the dielectric oil surrounding the X-Ray source, said X-Ray shield comprising a first end and a second end, said first end defining a plurality of openings receiving said plurality of heat pipes, said first end spaced a distance from said second side of said mounting plate, said second end defining an opening for X-Rays from the X-Ray source to exit.

16. (Original) The system of claim 15 further comprising a generally arc-shaped thermally conductive sleeve comprising an interior and an exterior coupled to said plurality of heat pipes such that said plurality of heat pipes are arranged lengthwise on a surface of said interior, said generally arc-shaped thermally conductive sleeve at least partially surrounding the X-Ray source.

17. (Original) The system of claim 15, wherein said X-Ray shield encloses said generally arc-shaped thermally conductive sleeve and is arranged trans-axially thereto.

18. (Original) The system of claim 15, wherein said first end of said X-Ray shield is coupled to said generally arc-shaped thermally conductive sleeve such that said generally arc-shaped thermally conductive sleeve extends a portion of a distance between said first end and said second end of said X-Ray shield.

19. (Original) The system of claim 15, wherein said mounting plate defines said plurality of openings spaced apart from each other in an arc arrangement.

20. (Original) A cooling system for an imaging system including an X-Ray source comprising:

a housing for the imaging system defining a dielectric oil reservoir enclosing the X-ray source;

a mounting plate coupled to said housing, said mounting plate comprising a first side and an opposing second side such that said second side defines a boundary of said dielectric oil reservoir, said mounting plate further defining a plurality of openings spaced apart from each other in an arc formation;

a plurality of heat pipes extending through said plurality of openings, whereby said plurality of heat pipes contact the dielectric oil;

a plurality of thermally conductive fins coupled to said first side of said mounting plate and arranged parallel thereto, said plurality of thermally conductive fins receiving at least a portion of each of said plurality of heat pipes;

a generally arc-shaped thermally conductive sleeve comprising an interior and an exterior, said arc-shaped thermally conductive sleeve coupled to said plurality of heat pipes such that said plurality of heat pipes are arranged lengthwise on a surface of said interior, said generally arc-shaped thermally conductive sleeve enclosed within said housing and at least partially surrounding the X-Ray source; and

an X-Ray shield enclosing said generally arc-shaped thermally conductive sleeve and arranged trans-axially thereto within said housing, said X-Ray shield comprising a first end and a second end, said first end defining a plurality of openings receiving said plurality of heat pipes, said first end spaced a distance from said second side of said mounting plate, said first end coupled to said generally arc-shaped thermally conductive sleeve such that said generally arc-shaped thermally

conductive sleeve extends a portion of a distance between said first end and said second end, said second end defining an opening for X-Rays from the X-Ray source to exit said X-Ray shield.